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## STATUS OF CLAIMS

Claims 1-10, 15-18, 23-24, and 29 are pending and were rejected. Claims 1 and 29 are the independent claims. Claims 11-14, 19-22, 25-28 and 30 were previously withdrawn as being drawn to non-elected inventions. Applicant has amended Claims 1 and 29 and canceled Claim 23 herein. No new matter has been added by amending the claims.

## **REMARKS**

Applicants filed a Request for Continued Examination by first class mail on May 14, 2008, which the Office received on May 20, 2008. The Office maintains its rejection of 35 U.S.C. 112, first paragraph and has therefore made this rejection Final. In order to further prosecution of this application on the merits, Applicant has amended the claims and respectfully request that this remaining rejection be withdrawn.

## Rejection Under 35 U.S.C. 112, first paragraph

Claims 1-10, 15-18, 23-24 and 29 are rejected under 35 U.S.C. §112, first paragraph. The Office argues that the there is "No relation between structure of the species and function is described. Neither the type of organisms nor the structure of the genes expressed in the organism are defined in the specification." Furthermore, the Office maintains its argument that the specification fails to provide enablement for producing ergosta-5,7 dienol by culturing *any* organisms...".

Applicant respectfully disagrees and maintains their previous arguments in response to this rejection. However, in order to further prosecution of this application, Applicant has amended claims 1 and 29 such that the invention is directed to the production of ergosta-5, 7-dienol by culturing *yeast* organisms. Furthermore, claims 1 and 29 have been amended to specifically refer to having Δ22-desaturase activity consisting of the enzymatic activity of Δ22-desaturase having SEQ.ID.NO: 2, HMG-CoA reductase activity consisting of the enzymatic activity of HMG-CoA reductase having SEQ.ID.NO: 4 and squalene epoxidase activity consisting of the enzymatic activity of squalene epoxidase having SEQ.ID.NO: 8. No new matter is believed to be added as the disclosure of the organism, yeast, was previously claimed (*i.e.*, in claim 23) and SEQ.ID.NOs: 2, 4 and 8 are disclosed throughout

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the specification and specifically in the sequence listing previously submitted with this

application.

Therefore, based upon the amendments to the claims herein and the arguments put

forth in previous responses, Applicants have satisfied all the requirements of 35 U.S.C. 112,

first paragraph and respectfully request that this rejection be withdrawn.

**CONCLUSION** 

In light of the foregoing Amendments and remarks, it is believed that the rejections

and objections of record have been obviated, and allowance of this application is respectfully

solicited. If a telephone conference would facilitate examination of this application in any

way, the examiner is invited to contact the applicant's attorney at (619) 846-4850. The

Examiner's consideration of this matter is gratefully acknowledged.

**FEES** 

The Commissioner is authorized to charge the fees for a petition for a two-month

extension of time for a large entity (\$490), the RCE fee (\$810) and any other fees deemed

necessary in connection with the above-application to Deposit Account No. 50-1047.

Respectfully submitted,

/Ann A. Wieczorek/

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**Certificate of Facsimile Transmission** 

I hereby certify that this document and any document referenced herein has been transmitted via facsimile to the US Patent and

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Marjorie Scariati

(Printed Name of Person Mailing Correspondence)

/Marjorie Scariati/

(Signature)